



Product Development & Dissemination Guide

for working groups of the

National Forum on Education Statistics
Sponsored by the National Center for Education Statistics

Questions or comments should be directed to the Chairperson of the
Forum's
Technology, Dissemination & Communications Committee (TD&C)

Product Development & Dissemination Guide

National Forum on Education Statistics

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Introduction

Since its inception in 1989, the National Forum on Education Statistics (NFES) has developed numerous resources to assist collectors, providers, and users of education data (see the Forum web site for an up-to-date list of available resources). While these resources generally have been well received by their intended audiences, recent field reviews suggest that many potential users of Forum resources are as of yet unaware of the Forum and the assistance it provides. This realization has prompted the Forum to reconsider its overall communication efforts, especially as they relate to the development and dissemination of the resources it develops.

This *Product Development & Dissemination Guide* has been produced in order to encourage a more methodical approach to the development and dissemination of Forum resources. It is intended for internal Forum use (i.e., standing committees, task forces, or other working groups embarking upon product development activities), and is based on the premise that resource production, promotion, and dissemination can not be viewed as independent activities.

For the purposes of this *Guide*, resource production has been divided into three major stages: product planning, product development, and product approval.

Part I: Project Planning

Procedural Overview¹

The following is an outline of the current planning and authorization process required to establish working groups in the Forum.

1. The Forum Steering Committee or a Standing Committee determines that there is a need for a working group (e.g., a task force) to research an issue or develop a product.
2. The Standing Committee recommends the establishment of the proposed working group to the Forum Steering Committee (via PPI) for approval of concept.

¹ In order to verify that proper procedures are being followed, working groups should contact the Policies, Programs, and Implementation (PPI) Committee chair for up-to-date versions of relevant Forum policies.

3. Upon receiving preliminary Steering Committee approval, a Chairperson, an NCES liaison, and members are appointed to serve on the working group by the sponsoring Standing Committee. Note that ongoing support is not granted until Step #7.
4. The working group gathers (at its first task force meeting) to discuss its task, create its vision, and complete the requirements of the *Product Development & Dissemination Plan* as explained later in this *Guide*.
5. The working group submits its *Product Development & Dissemination Plan* to the sponsoring Standing Committee for approval.
6. Upon approval by the Standing Committee, the *Product Development & Dissemination Plan* is submitted to the Steering Committee for approval. (Steps 5 and 6 are combined if the Steering Committee is sponsoring the working group.)
7. Steering Committee and NCES approval of the *Product Development & Dissemination Plan* pledges Forum support of the project and signifies that development work can commence.

Exhibit 1

Sample Timeline for Project Approval (based on the steps outlined in the *Procedural Overview* above)

- | | | |
|---------|--|----------------|
| Step 1. | NESAC determines a need for a task force. | (January 2000) |
| Step 2. | NESAC makes a recommendation to the Forum Steering Committee (via PPI) for approval of concept. | (January 2000) |
| Step 3. | Upon receiving Steering Committee approval (at the conclusion of the January 2000 Forum meeting), NESAC appoints a Chair and members to the task force. An NCES liaison is also appointed. | (January 2000) |
| Step 4. | The task force meets to create its <i>Product Development & Dissemination Plan</i> (as explained later in this <i>Guide</i>). | (March 2000) |
| Step 5. | The task force submits its <i>Product Development & Dissemination Plan</i> to NESAC via e-mail. | (March 2000) |
| Step 6. | NESAC approves and forwards (via email) the <i>Product Development & Dissemination Plan</i> to the Steering Committee. | (April 2000) |
| Step 7. | The Steering Committee officially approves the <i>Product Development & Dissemination Plan</i> , thus permitting the task force's development work to officially commence (which, according to this timeline, would occur at the next Forum meeting in July 2000). | (April 2000) |

Thus, within 3 months, the task force is able to meet to develop its *Product Development & Dissemination Plan* and receive Steering Committee approval.

Developing the “Product Development & Dissemination Plan”

There are many factors that affect decision-making during the product planning phase. As mentioned above, the primary purpose of this *Guide* is to inform working groups as they plan a coordinated approach to the production, promotion, and dissemination of new Forum resources. Exhibit 1 (below) outlines the range of product development and dissemination issues a working group must consider *before* embarking upon actual development tasks. The group’s responses then will serve as the basis for the *Product Development & Dissemination Plan*. (Note that while the planning outline is presented in a logical order, it need not necessarily be addressed in a linear fashion.)

Exhibit 2

Product Planning Outline

Any working group (e.g., a standing committee or task force) proposing to embark upon the development of a new Forum product (or the revision of an old product) should first address the following issues in order to help clarify project goals and strategies. *Note that while these issues are presented in an apparently logical order, they need not be addressed in a linear fashion.*

1. Clearly affirm project rationale through a written statement of purpose.
2. Identify and prioritize intended target audience(s).
3. Identify a primary product and desired sub-products.
4. Identify a distribution medium for each product and sub-product.
5. Develop a tentative dissemination strategy.
6. Anticipate user training needs.
7. Anticipate product testing.
8. Estimate product distribution.
9. Anticipate a product revision schedule.
10. Identify resource needs.
11. Establish project timelines.
12. Determine evaluation methods.
13. Appoint a Dissemination Coordinator.

Responses should be presented as a single, coordinated, *Product Development & Dissemination Plan* for the proposed product(s). This *Plan* will inform decision-making throughout the development process and forewarn those entities responsible for budgeting decisions. The Chair of a working group is required to submit the completed *Product Development & Dissemination Plan* to the working group’s sponsoring Committee (the Steering Committee or a Standing Committee as appropriate) before development work can commence.

1) Clearly affirm project rationale through a written statement of purpose

The working group must ask itself, “Why have we been convened?” The answer to this straightforward, but not necessarily simple, question must assure everyone involved in the product development process, including those who approve and support such activities, that there is a clear understanding of the purpose and expectations of the endeavor. A clear statement concerning project goals and objectives will help focus subsequent development efforts and set definable expectations. If the group’s purpose includes the development of a product, the statement should identify the specific user need the product will be designed to address (e.g., “Despite the proliferation of technology in schools, there currently is not an acceptable resource to help the education community address technology security issues”).

2) Identify and prioritize intended target audience(s)

Targeted audience groups should be listed as specifically as possible. Note that some resources are directed at users who have a particular job assignment (e.g., a researcher, a computer programmer, or a teacher) while others are designed for users who work in a specific setting (e.g., an SEA office, an LEA central office, or a school site). It is conceivable, and even likely, that there could be more than a single audience type identified in this step. If so, user groups should be prioritized. Common target audiences of Forum resources include:

Job Assignments

Data collector	Data provider	Researcher/evaluator
MIS staff/programmer	Principal/VP	Teacher/Faculty
Chief executive	Librarian	Trainer
Technologist	Policy advisor	Product developer
Student	Parent	Law officer
School Board member	Business official	Registrar
Legislator	Legal council	Other Administrator

Job Settings

State education agency	Local education agency
Intermediate agency	K-12 school site
Post-secondary institution	Federal agency
Library	Research organization
National organization	Private school/organization

3) Identify a primary product and desired sub-products

The critical part of identifying a primary product is ensuring that the format is consistent

with the needs and capabilities of its intended users (e.g., it shouldn't be assumed that all parents have access to computers or that a computer programmer will be willing to rekey coding instructions that only are available in hard copy). By identifying a primary product, the working group can focus its efforts on the production of its fundamental content before adjusting that content to meet the needs of different targeted user groups. After all, no matter how a product will eventually be packaged, the core of information on which any sub-product is based must first be developed.

Sub-products customize information contained in primary products so that it better meets the needs of its intended users or a subgroup of users. For example, information contained in a primary product like a paper publication might be customized into a sub-product such as an executive summary or an abstract (to emphasize main or overarching points), an HTML version (to promote electronic access), or a PowerPoint® presentation (to train users). As in the case of determining a primary product, sub-products should be selected in order to meet the operational and dissemination needs of identified target groups.

Oftentimes sub-product design will be based on common sense. For example, an executive summary only makes sense when the primary product is a lengthy document. Similarly, a product announcement is unnecessary for publicizing a brochure that can itself be mailed to its target audience.

Possible products and sub-products include:

<i>Book</i>	<i>Press Release</i>	<i>Video</i>
<i>Brochure/Pamphlet</i>	<i>Camera-Ready Advertisement</i>	<i>PowerPoint® Presentation</i>
<i>Executive Summary</i>	<i>PDF File</i>	<i>Brochure Insert</i>
<i>Abstract</i>	<i>HTML File</i>	<i>Promotional Material</i>
<i>Product Announcement</i>	<i>Other Machine-Readable Format</i> (e.g., Word® & RTF files)	

Note that the following sub-products are required for all newly developed Forum resources: an abstract, a product announcement, a Word® file, a Rich Text Format (RTF) file, a PowerPoint® presentation, and a brochure insert. Note also that a PDF file must be prepared for all printed Forum products and materials.

NCES policy further requires a print version of all products in order to ensure that users with and without computers have equitable access to the resource. Products that are unsuitable for print (e.g., videos) must have an accompanying printed product announcement and abstract. Descriptions, advantages, and disadvantages of each product/sub-product are included in Appendix A.

4) Identify a distribution medium for each product and sub-product

A distribution medium should be selected for each planned primary product and sub-product. Although product type and distribution medium usually are closely linked, they sometimes must be considered separately. For example, a video can be distributed on tape *or* over the web. Likewise, a book can be distributed as a paper document *or* an HTML file.

Possible distribution media include:

- | | |
|---|---------------------------------|
| 1) Paper | 4) Electronic - via Floppy disk |
| 2) Tape (i.e., videotape) | via World Wide Web |
| 3) Personal Interaction (e.g., oral/visual presentations) | via Compact Disk |

5) Develop a tentative dissemination strategy

Once planners have established a purpose (Step #1), an audience (Step #2), a primary product and sub-products (Step #3), and dissemination media (Step #4), it is necessary to step back from a development and production mindset and think about possible (or even likely) dissemination strategies. In essence, these deliberations should address the question of how, specifically, the primary product and sub-products will be delivered to their intended audience(s) via their distribution media.

One dissemination option might be to rely upon the use of NCES mailing lists for product announcements. Another might be to plan a series of PowerPoint® Presentations to be given at targeted professional meetings. Yet another effective strategy might be to promote the resource via magazine and journal articles. The point is that dissemination decisions and development plans, including the selection of products and sub-products (Step #3) and distribution media (Step #4), are interdependent. After all, a PowerPoint® Presentation surely should be in the works if a conference presence is anticipated; so too should a press release be available if the plan is to publicize the resource in an association journal.

Examples of possible dissemination strategies include, but are not limited to:

- Traditional Government Printing Office (GPO) publication lists
- Direct mailings via NCES mailing lists
- PDF or HTML files posted to the NCES or Forum web sites
- Articles or advertisements in journals, magazines, newsletters, newspapers, or trade publications
- PowerPoint® Presentations at professional conferences and meetings
- Word of mouth
- SEA/LEA/Association networking

After selecting preferred dissemination strategies, it is necessary to determine specific dissemination *responsibilities*. In some cases, Forum members themselves might accept dissemination responsibilities (e.g., SEA/LEA networking). In other cases, NCES can handle certain dissemination tasks (e.g., mass mailing and web postings). Unfortunately, NCES does not have the staff to manage other types of dissemination strategies, such as making conference presentations and writing articles for magazines or journals. In any case, responsibilities for implementing dissemination strategies must be assigned clearly and specifically.

Of course, all aspects of product dissemination can not be finalized so early in the development process. After all, it is conceivable that news about a product might not warrant space in a magazine or that the AERA might reject a presentation proposal. In any case, agreement on anticipated dissemination strategies and responsibilities will help to inform subsequent development decision-making. (See also Step #8: Estimate Product Distribution.)

6) Anticipate user training needs

A product is only effective if its intended audience really uses it—and product use usually depends upon appropriate training. Thus, working groups should put considerable thought into the potential training needs of their target audiences. Once training needs have been established, suitable training mechanisms must be identified and developed (perhaps as sub-products). Without effective training materials, it is unreasonable to expect a worthwhile return on the investment in product development. Put simply, the value of an appropriate training program for new resources can not be overstated.

A working group might conclude, for example, “We have determined that significant user training is necessary to implement this product... therefore we will develop two sub-products designed specifically for training purposes... a PowerPoint® Presentation and a laminated reference sheet.”

Note that training needs might be recognized most effectively via input directly from representatives of a target audience, as would occur through focus group review and pilot testing (see Step #7: Anticipating Product Testing).

7) Anticipate product testing

One highly effective way to verify that a product or sub-product has been developed properly (and is, therefore, ready for release) is via a thorough testing program. Testing efforts should be designed to gather feedback on product content, organization, presentation, and applicability. Possible vehicles for doing so include, but are not limited to:

Internal review –	Presentations about product status and development to Forum, Summer Data Conference, or MIS participants in order to offer attendees an opportunity to critique or otherwise offer feedback on a draft of the product.
Public review –	Unsolicited mass mailings or other efforts to disseminate a draft of a product in order to elicit feedback (usually through a written comments).
Focus groups –	Small groups of representative users (or content area experts) convened to critique a draft or offer direction on the development effort.
Site visits –	On-site visits by product developers to hear comments about the product from potential users.
Pilot testing –	Experimental use of a product by a representative group of potential users under real or simulated conditions in order to evaluate the product’s applicability.

8) Estimate product distribution

Product distribution costs can be significant. By estimating distribution plans at the onset of an activity, a working group enables project sponsors to plan accordingly. As with any step in the planning phase, projections should be as specific as is possible. For example, “Our anticipated audience is all LEA superintendents, so we’d like to make 16,000 copies of an executive summary, 5,000 copies of the primary paper document, and 1,000 videos.”

In order to accomplish this task, the working group should review all planning decisions made in Step #5: Develop a Tentative Dissemination Strategy. It should also rethink the distribution plan in its entirety at this point. For example, if the strategy depends upon NCES mailings, the group should determine whether a mailing list of desired recipients is either already available or is able to be generated. If a mailing list needs to be created, the working group should begin working with NCES and/or support contractors to do so in the very near future—after all, developing such a mailing list might itself prove to be a difficult project.

9) Anticipate a product revision schedule

No product is timeless. Data elements change, recommended practices become dated, and surely technology evolves. Thus, every product, at least in the form that it was originally presented, will become antiquated at some point. Therefore, working groups must establish specific recommendations

for future review and revision of all published materials. Such recommendations should include reference to the anticipated reviewing body. For example, “We know that the nature of this product makes it vulnerable to becoming outdated fairly quickly. Thus, it is recommended that this product be reviewed by NESAC within three years.”

10) Identify resource needs

Oftentimes members of working groups collaborate to develop a new product. In other cases, groups oversee the direction of product development but leave the actual labor to an NCES-contracted support person or organization. In either case, final preparation of a new product usually requires the services specialized professionals (e.g., editors, designers, and programmers). All work assigned to such support staff (i.e., not Forum members or NCES staff) requires a financial commitment from NCES, usually through outstanding contracts. In order for NCES to make budgeting and resource assignments to support the needs of worthwhile Forum endeavors, working groups must determine their travel needs, estimate the types and amounts of outside support required, and identify other expenses as possible. For example, “We expect that the development of our pamphlet will require 10 days of contractor support work. It also will require 5 days of editing, layout, and design services.” Note that the working group need not estimate actual dollar amounts to pay for requested services since NCES calculates costs based directly on its negotiated contracts.

11) Establish project timelines

Timelines establish a series of dates that are significant in the development of a project or product (e.g., draft one by January 15, draft two by April 15, and final product by July 15). Timelines help everyone (including developers, contractors, and sponsors) share a common set of expectations concerning development milestones. Note that while there are certain dates that are convenient in terms of scheduled Forum activities (e.g., the January and July meetings), timelines should be based on the amount of work required to accomplish a task rather than an artificial calendar deadline. Timelines should be established for both product development milestones and the working group’s life cycle (i.e., how long the group plans to exist). Since all working groups are expected to report on project progress to their parent standing committees at scheduled Forum meetings, it is imperative that timeline decisions be made in a realistic manner. Actual progress will be measured against originally proposed timelines.

Note also that a timeline should reflect any other decisions that affect a product’s anticipated release date. For example, it should be clearly stated if the plan is to release a product during a

particular event (e.g., the Summer Data Conference), at a particular time (e.g., the new fiscal year), or in conjunction with another product (e.g., revisions to the *Student Data Handbook* and the *Staff Data Handbook* will be released together).

12) Determine evaluation methods

What aspects of the project were particularly successful? What was less successful? What factors likely contributed to these successes and shortfalls? Project evaluation should identify successes and shortfalls in project management, NCES support, Forum support, contractor assistance, product development, and product dissemination. In order to evaluate these components fairly, the working group should establish evaluation criteria *before* undertaking development activities. Project planners should keep in mind that evaluations are not only valuable at the completion of a project, but also throughout the development process, as interim evaluations can inform future management and support decisions.

Evaluation options might include an objective series of procedural goals and objectives, a subjective process review by working group members, or a check list of measurable expectations. Such an evaluation will provide valuable information to the working group's chairperson, the sponsoring Standing Committee, the Forum Steering Committee, and NCES decision-makers concerning effective (and less effective) approaches to product development. Ideally such feedback also can be used to improve future Forum projects.

13) Appoint a Dissemination Coordinator

One person on each working group should be charged with maintaining a focus on product dissemination throughout the entire development process. This Dissemination Coordinator should scrutinize all development decisions in light of their impact on the *Product Development & Dissemination Plan*.

Submitting the “Product Development & Dissemination Plan”

Responses to all issues raised in the *Product Planning Outline* (Steps # 1-13) should be included in a single, coordinated, plan for developing and disseminating the proposed product. The *Product Development & Dissemination Plan* will thus serve to inform decision-making throughout the development process and forewarn those entities responsible for budgeting issues. Admittedly, any such plan is tentative by nature because of the limits associated with trying to

foresee potentially unpredictable development decisions. Nonetheless, the development of such a plan assures all parties involved that there is at least initial agreement on project expectations, which, if necessary, can be adjusted by subsequently agreed-upon revisions.

It is, therefore, incumbent upon the Chair of the working group to submit a completed *Product Development & Dissemination Plan* to the Chair of the parent Standing Committee. Once the *Plan* is approved by the Standing Committee, it should be submitted to the Steering Committee (note that the *Plan* would be submitted directly to the Steering Committee if the Steering Committee was the sponsoring body). It is only upon receipt of Steering Committee approval that additional funds can be allocated and development work officially commence.

Part II: Product Development

While there are a variety of work styles that might prove to be appropriate for developing a new Forum product, there are several aspects of product development that must be a part of any Forum project:

- 1) Working groups (e.g., task forces, standing committees, etc.) are expected to meet in conjunction with both Summer and Winter Forum meetings. Working groups may meet up to two times per fiscal year (October 1 – September 30) outside of general Forum meetings as needed.
- 2) Working groups should host round table discussions (at Forum meetings) as necessary to keep the general Forum membership apprised of its progress and provide an opportunity for members to offer feedback on product development.
- 3) Working groups must report on project progress at each subsequent meeting of its sponsoring Standing Committee and at the closing general session during Summer and Winter Forum meetings.
- 4) Working groups should secure additional feedback as needed by offering presentations on project progress and direction at the annual NCES Summer Data Conference and/or the annual MIS Conference.

Part III: Product Approval

When the working group has completed the development of a new or revised product, it must submit that product to its sponsoring Forum Standing Committee.² The Standing Committee must, in turn, vote on whether to recommend the product to the Steering Committee and general Forum for adoption (note that the product goes directly to the Steering Committee if the Steering Committee is the sponsoring body).

In order to inform all Forum members about the product in question, the working group is responsible for offering a presentation about the final product to the entire Forum during a general session. This presentation should include an overview of product development and testing as appropriate.

If the product requires significant time for adequate review (e.g., a 100 page book), it should be made available to Forum members at some point prior to the beginning of the Forum meeting (two weeks is often appropriate). Note that while formative feedback (e.g., “change chapter 2”) is welcome at earlier stages in the development process, it is not expected during the final Forum-wide presentation. Instead, members are expected to vote simply whether or not to approve adoption of the product.

The charge of the working group is completed upon a general Forum vote to approve and adopt the new or revised product. Once a working group has met the expectations it set out for itself in its *Product Development & Dissemination Plan*, actual dissemination of the product becomes a relatively straightforward matter. Note, however, that some working group members (e.g., the Chair and the Dissemination Coordinator) should continue to play a role in the final stages of product production (i.e., layout and design) as necessary. Similarly, other members of the working group might play a role in subsequent promotional activities.

² Note that a working group may include recommendations and other qualifiers when submitting a final product. For example “We strongly recommend that another task force follow up on this work in order to address...”

Appendix A

Forum Product/Sub-Product Types

NCES and Forum Requirements

Note that the following sub-products are required for all newly developed Forum resources: an abstract, a product announcement, a Word® file, a Rich Text Format (RTF) file, a PowerPoint® presentation, and a brochure insert. Note also that a PDF file must be prepared for all printed Forum products and materials.

NCES policy further requires a print version of all products in order to ensure that users with and without computers have equitable access to the resource. Products that are potentially unsuitable for print (e.g., videos) must have an accompanying printed product announcement and abstract.

Possible Forum products and sub-products include, but are not limited to:

A BOOK is a traditional way of communicating textual information via bound paper pages.

Advantages – Books are an accepted form of communication that most people are familiar with (e.g., the way text is organized and accessed). Reading a book is essentially independent of technological constraints. After all, most people can get to a library or bookstore, but not everyone has access to a computer.

Professionally published books tend to be perceived as more “official” than other types of less formal presentations. Professional publishing also makes it more likely that intermediate distributors (e.g., SEAs and LEAs) will be willing to recommend a document and that journals will be willing to publicize it through book reviews.

GPO printing has no direct cost to the Forum. Thus, if the layout, design, and editing costs are minimized by keeping the publication “simple”, the price of producing a book can be relatively low.

Disadvantages – Some people don’t like to read from paper manuscripts, or they don’t want to have to navigate through a lot of pages to find the parts that apply to them

(compared to electronic “search and retrieval” systems). Depending on the amount of information contained, books can sometimes become dense or voluminous and, thus, can intimidate or overwhelm a potential reader. Books that are available only in paper form also force users to rekey any text they want to customize, import, or replicate.

Production costs generally increase with document size and the use of glossy, multicolor features or high-end binding techniques. In order to reap the benefits of a “professionally” published document (see above), layout, design, editing, and production efforts often become significant undertakings and demand considerable financial investment.

A BROCHURE/PAMPHLET is another traditional way of sharing information via paper, but brochures and pamphlets usually contain less text than generally found in a book.

Advantages – A brochure or pamphlet is a more manageable production than a book if the volume of information allows it. This is true both for the developer and the reader. Brochures and pamphlets can be distributed more easily, be it by hand or mail, and, therefore, make for convenient marketing tools. Generally speaking, they are significantly less expensive to produce than books, but can still demand professional development and production expertise.

Disadvantages – Brochures and pamphlets only can convey a limited amount of information since, by definition, they are restricted to a few pages in length. Because they are not bound, they may appear less “official” than a book. They are less lasting for the same reason. As with books, the cost of brochures and pamphlets increases with size and extravagance. Because they are designed for easy distribution, expect the issue of reprint costs to eventually arise (or else the brochures are not doing their job).

An EXECUTIVE SUMMARY is a short (generally no longer than two pages), stand-alone, synopsis of a product. An executive summary should include a contact point for the reader to request the complete product if interested. NCES frequently distributes a variation of an executive summary known as an “issue brief” which, as the name suggests, briefly addresses an issue on the front and back of a single sheet of paper.

Advantages – Executive summaries generally are written for busy readers (i.e., “executives”) who are more likely to peruse a brief overview than commit to reading a complete work. The convention is that the reader can then request the full product if he or she is so inclined. Because of their size, executive summaries are also much easier to

distribute than a full product, and can easily be made into “mailers” if kept to 1 to 1 ½ pages.

An executive summary should be able to be produced relatively inexpensively. Product authors should be able to distill content into the needed 1-2 pages (which, while not as easy as it sounds, is a manageable task). Formatting, display, and production can then be as simple or complex as desired. Formatting via word processing software and replication on a black and white photocopier are obviously the least expensive options.

Disadvantages – Readers of executive summaries are left to demonstrate their own initiative to follow up and get a copy of the complete product. Executive summaries also carry the same disadvantages as brochures and pamphlets—they only can accommodate limited information and generally are produced in a less sophisticated format than a book (and may, therefore, be less lasting than a bound publication). Professional design and printing can increase development costs significantly.

An ABSTRACT is a concise paragraph that describes a product. Abstracts of Forum products are converted into “web page product announcements” by NCES. Examples can be found on the Forum web site. **An abstract is required for all newly developed Forum resources.**

Advantages – Abstracts get to the point without any fluff. Many readers prefer this no-nonsense approach to sharing information. Abstracts can easily be distributed via paper copy or electronically. They are particularly useful with web pages—space is conserved by presenting an abstract with a link to the complete product (as opposed to forcing the web surfer to download an entire product without knowing what it is). Similarly, abstracts usually can be converted into Forum brochure inserts and product announcements without much trouble. Other than some editorial effort, little to no financial resources are required to generate an abstract.

Disadvantages – Abstracts leave little room for full explanations of product content, not to mention detailed explanations of why the product may be of interest to the reader. Creating an abstract requires some skill in the sense that distilling a 100 page document into a 100 word abstract is not as easy as it sounds.

A PRODUCT ANNOUNCEMENT is a brief (2-3 paragraph) description of a product that emphasizes the release of the product and related contact information so that a reader can then order the product. Forum product announcements must include the product’s NCES number and web site address. **A product announcement is required for all newly developed Forum resources.**

Advantages – NCES and other organizations are well prepared to disseminate product announcements to scores of potential users that populate their mailing lists (as opposed to distributing sometimes bulky products that are more expensive to mail). Because of their brevity, product announcements can be distributed relatively easily via hard paper copy or electronically. Product announcement development and GPO printing should not have a direct cost to the Forum.

Disadvantages – Product announcements place the burden of follow up on the reader, who, if interested in the product, must take time to complete the ordering instructions.

A PRESS RELEASE is designed to simplify the process of promoting a product. As the term suggests, a press release is intended to share news through a publication such as a magazine, journal, or newspaper.

Advantages – By presenting information about a product in a way that meets the needs of media outlets, the working group makes publicizing the product that much easier for reporters and other media channels. This, in turn, increases the likelihood that the product will actually be reported by magazines, journals, and newspapers. A press release can be produced at minimal expense.

Disadvantages – Press releases often require that product descriptions be simplified, sometimes to the point that developers are unable to fully explain a product's purposes and limitations. Also, it is important to note that the subject of a press release must be considered to be newsworthy by the intended magazine, journal, or newsletter. If not, expenses can be incurred when purchasing advertising space.

A CAMERA-READY ADVERTISEMENT is exactly that—a prepared “commercial” that enables a publication to insert and print the ad without additional work.

Advantages – The key to a camera-ready product is that it minimizes the work an outside organization needs to invest in creating an ad for their magazine, journal, or newspaper—thus, it correspondingly increases the likelihood that they will include the advertisement in their publication. At a minimum, it should decrease the cost of paid advertising.

Disadvantages – Success in the advertising world generally requires that advertisements be aimed directly at their intended audiences, which means that developers must know precisely who they are targeting (and via what channels) so that the advertisement can be customized for each audience. If not, the advertisement's

effectiveness may be limited.

Expenses can become significant considering the fact that most, if not all, magazines, journals, and newsletters charge fees for advertising.

A PDF File (Portable Document Format file) is a common format used on the World Wide Web. PDFs are read by Adobe Acrobat Reader® software, a widely distributed (free of charge) application that allows a user to import a PDF file and view a page by page electronic version of a document. **A PDF file is required for all newly developed Forum print resources.**

Advantages – PDF reader software (i.e., Adobe Acrobat Reader®) can be downloaded from the web free of charge and, subsequently, has become a widely used mechanism for distributing information over the World Wide Web. PDFs generally are considered to be easier to create than HTML files (see below), assuming that an author owns the rights to the authoring tool, which NCES does. Once the authoring tool is available, PDF conversion costs are minimal.

Disadvantages – While PDF files can be printed, they are most commonly read from a monitor (i.e., in their electronic form) and thus are very much dependent upon the intended audience's ability to use technology. Unlike HTML or other full-text search software, PDF files generally are authored at the "page" level, although longer files can be broken into "chapters" that are referenced by an electronic table of contents. Still, there are limits to the ways in which PDF files can be accessed and manipulated. For example, users can not add, cut, or paste text, but can perform basic text searches.

An HTML File refers to a Hypertext Markup Language file. HTML is a system of electronically tagging a document so that it can be published to the World Wide Web. **Working groups are strongly encouraged to convert new products into HTML files as appropriate for posting to the Forum web site.**

Advantages – HTML is the primary programming language supported by web browsers. It allows for electronic "linking" within and between text, graphics, and other objects on the World Wide Web. For example, when a Forum publication is converted to HTML, it can be electronically linked to and from the NCES homepage, the Forum homepage, and other web pages as appropriate. In that sense, HTML is a universal computing language. HTML also allows the author to enable interactive querying and searching within a file. In many ways, converting files to HTML for posting to the web has become a standard cost of conducting business in today's electronically connected

world.

Disadvantages – Despite its familiar reputation, HTML is by no means the only mechanism for viewing and/or transferring information over the web (e.g., see PDF files above). HTML frequently is used for documents that contain numerous hypertext links within the body of the file. Thus, converting a document to HTML can sometimes be an expensive endeavor because of the labor and expertise involved.

OTHER MACHINE-READABLE FORMATS are evolving each day and should be selected for use as they prove to be applicable. Among other features available in machine-readable formats are packages that enable full text searching, statistical manipulation, and user customizing. Possible formats that might be desirable for Forum product distribution include word processing files, database files, and spreadsheet files. It is necessary that electronically distributed products be packaged either with the software needed to access the files or in a format that is already commonly used by target audiences. **A Word® file and Rich Text Format (RTF) file are required for all newly developed Forum resources upon submission to NCES.** (Note that an RTF file enables text to be read by any of numerous types of word processing software, including both Word® and Word Perfect®.)

Advantages – Like other aspects of technology, software capabilities are changing rapidly, both in terms of improvements to existing products (e.g., more advanced search capabilities) and the development of new, paradigm shifting, innovations (e.g., superior database technologies). Rather than limiting sub-products to formatting and distribution capabilities of PDF or HTML, software can be selected to meet the vision of product developers.

Disadvantages – The intended audience must have access to the software in which a product is formatted. In most cases, either the user or the provider will need to purchase the rights to use the application software. Software licensing can be tremendously expensive (e.g., \$1,000 per user is not uncommon). More affordable software can become less economical when one considers the sheer number of licenses that must be purchased for a distribution of significant magnitude. Custom development of software can be even more expensive than the purchase of commercially available proprietary software.

A VIDEO enables pictures and sounds to be played on a television screen, computer monitor, or other projection system.

Advantages – People are comfortable watching videos. Most people would likely

consider video to be a user friendly product. It requires little or no reading and can, almost without exception, be viewed by anyone. Video has become quite common in our world and therefore is an effective way of communicating certain types of messages. It is an excellent way to tell a story or describe a process. It is especially effective for products that will be presented for mass consumption or training. No matter the medium through which videos are packaged (e.g., on tape or electronically over the web), videos can be replicated and distributed relatively easily.

Disadvantages – Some messages are not well suited for communication via video, especially if a written record is a desired outcome. Highly detailed or technical messages (e.g., the technical steps to implementing the SPEEDE/ExPRESS information transfer system) clearly can not be conveyed effectively as simple pictures and sounds. Video production must be contracted to organizations that provide this professional service—usually at significant cost. Expenses are increased further by distribution costs associated with copying, packaging, and mailing (if tape will be used).

A POWERPOINT® PRESENTATION enables users to “load” pre-prepared files onto a computer and make a presentation to an audience (or train large groups). **A PowerPoint® presentation is required for all newly developed Forum resources.**

Advantages – PowerPoint® has become a well known, widely used, and effective presentation tool. Distribution of a pre-prepared PowerPoint® presentation helps to ensure that a message is being disseminated in a consistent way. Although presentation consistency is clearly a desired outcome, multiple versions of a PowerPoint® presentation can be developed to accommodate user skill levels. For example, presenters who are new to PowerPoint® might be given a “push-button” version that enables them to start the presentation and simply watch it run (note that PowerPoint® can be produced with its own audio). On the other hand, more skilled users can customize the file to meet the needs of a particular audience type.

Creating PowerPoint® presentations is a relatively straightforward and manageable task for many people involved in the development of Forum products. PowerPoint® files can be housed and maintained on the web for easy access and distribution. Since NCES and most Forum contractors have access to licensed PowerPoint® authoring software, development costs are negligible.

Disadvantages – PowerPoint® presentations require that there be decentralized group of people willing to actually make presentations to target audiences out in the “field”.

A FORUM BROCHURE INSERT is a short (100-150 words) synopsis of a product designed for dissemination with the Forum brochure. In addition to a product summary, brochure inserts include GPO ordering instructions, electronic access instructions (e.g., the URL to the product's page on the NCES or Forum web site), and a general description of the National Forum on Education Statistics. **A Forum brochure insert is required for all newly developed Forum resources.**

Advantages – Developers can expect that the Forum brochure will be distributed at meetings, conferences, and other gathering of education professionals. Inserts can usually be modified from existing abstracts or executive summaries.

Disadvantages – Because of the range of possible recipients of Forum brochures, developers may find it difficult to customize the product summary to any single audience other than general “education professionals”.

PROMOTIONAL MATERIALS are intended to catch a potential user's attention or otherwise highlight product relevance and utility. Examples of possible promotional materials include posters, mouse pads, Post It® notes, pens, bags (e.g., Summer Data Conference bags), laminated lists, and “tips of the week”.

Advantages – Anything that stimulates a target audience's interest in a new product or makes the product more likely to be implemented on a day-by-day basis makes sense. Catchy promotional materials can readily be distributed at meeting and conferences. “Tips of the week” type teasers might not only publicize a product, but also arouse a reader's interest in an important topic. Costs associated with promotional materials are variable, but are generally well less than the development of many other types of products and sub-products.

Disadvantages – True “promotional” materials have rarely been developed by the Forum. The most difficult challenge related to developing promotional materials might be the distribution of such materials into the hands of those people who will use them (i.e., a particular target audience rather than a general conference audience). More sophisticated products (e.g., a glossy, tri-color, laminated, folding list of security tips) are more costly than less complex products (e.g., a black and white paper flyer with the same security tips). Expense versus value must, therefore, be considered carefully.

Appendix B

Sample responses to the *Product Planning Outline*

Technology Security Project
Submitted by the Task Force Chair

Task Force Formal Response	Task Force Thought Process ³
<p>1) Affirm project rationale through a written statement of purpose</p> <p>Despite the proliferation of technology in schools, there is not currently an acceptable resource to help the education community address technology security issues. The purpose of this project is to identify best practices for effectively securing an education organization's sensitive information, critical systems, and computer and networking equipment.</p>	<p>The task force recognized that there was a need for guidance about technology security in the education community.</p>
<p>2) Identify and prioritize intended target audience(s)</p> <p>Our target audience is educational administrators at the building, campus, district, and state levels. This includes school principals, district superintendents, state chiefs, college deans, and their assistants. Targeted audiences might work in public or private education organizations, K-12 settings (elementary, middle, junior high, and high schools), postsecondary institutions, local education agencies (central offices), intermediate education agencies, or state education agencies. Secondary audiences include school board members, legislators, technical coordinators, MIS staff, and other support personnel in the types of organizations identified above.</p>	<p>The task force realized that technology security can not be a piecemeal effort. Instead, security must be an organization-wide activity that requires top level management to commit the entire organization (and its resources) to the effort. Therefore, educational administrators needed to be the product's primary target audience.</p>
<p>3) Identify a primary product and desired sub-products</p> <p>The primary product will be a paper bound book, published in the traditional NCES style of 8 ½x 11" paper with a soft cover (glossy with 2-3 colors). We hope to develop a book that has the user-friendly look, feel, and readability of <i>Technology @ Your Fingertips</i>. We expect that GPO will print the book.</p> <p>Desired sub-products include, in order of preference, the following:</p> <ul style="list-style-type: none"> a) a PDF version b) an HTML version c) an executive summary d) an abstract e) a PowerPoint® Presentation f) a brochure insert g) a product announcement h) a press release i) a Word® file j) an RTF file 	<p>The task force knew that <i>Technology @ Your Fingertips</i> had been well received by its target audience because of its readability and user friendliness. Thus, the task force hoped to develop a comparable document that would serve as the primary product.</p> <p>The PDF file, Word® file, RTF file, abstract, product announcement, PowerPoint® Presentation, and brochure insert were all required sub-products.</p> <p>An executive summary made sense because the book was expected to be between 100 and 150 pages.</p> <p>Because the Web is such an effective way of sharing information, the task force also believed that an HTML version was imperative (especially since the topic was of a technical nature).</p>

³ While the *Product Planning Outline* is presented in a logical order, the thought processes that inform decision making need not be addressed in a linear fashion.

<p>4) Identify a distribution medium for each product and sub-product</p> <p>The book (the primary product) will be distributed on paper.</p> <p>The PDF and HTML versions will be posted to the Forum/NCES web site so they do not, themselves, need to be distributed. It is assumed that the web site will enable users to download these files electronically.</p> <p>The executive summary and abstract will be printed on paper. They also must be available electronically as it is expected that both would be valuable as a part of the product description on the Forum/NCES web sites.</p> <p>By definition, the PowerPoint® presentation will be available in electronic form and be able to be transferred electronically. It will be housed on the Forum web page.</p> <p>The brochure insert will be developed based on the product abstract. It will be submitted to the Steering Committee, which can then ensure that it becomes a component of the brochure.</p> <p>The product announcement (probably a modified version of the executive summary) and press release will be available both on paper and electronically in order to enable transfer to external organizations that might be asked to publicize the product.</p>	<p>The task force selected a book as its primary product specifically because it is distributed on paper—a format with which educational administrators are comfortable working.</p> <p>Decisions about sub-product distribution media were based on common sense. For example, PDF, HTML and PowerPoint® files must all be distributed electronically.</p>
<p>5) Develop a tentative dissemination strategy</p> <p>It is proposed that NCES coordinate the GPO printing. The task force contractor will manage editorial, layout, and design tasks that will be the responsibility of another NCES subcontractor. NCES and GPO will publicize the product through their normal product announcement mechanisms.</p> <p>NCES also will be asked to support a mass mailing of executive summaries to all SEAs and LEAs on their current mailing lists. PDF and HTML files will be posted to both NCES and Forum web sites. The PowerPoint® presentation will be housed on the Forum web site. Ideally, NCES will support conference attendance (by task force members or contractors) so that the book can be publicized at national conferences of organizations like AASA, NASBE, ASBO, NAESP, and NASSP. The brochure insert will be distributed with all future Forum brochures (e.g., at conferences).</p> <p>We also will contact magazines, journals, and newsletters (e.g., <i>School Business Affairs Magazine</i>, <i>Education Week</i>, etc.) in order to request publicity through articles and book reviews. Task force members and contractors will author articles as necessary.</p>	<p>The task force decided to rely upon proven NCES methods for initial dissemination of the book.</p> <p>In order to reach even more members of the targeted audience, the task force hoped to augment traditional NCES methods via a strategic publicity campaign. For example, it was determined that sharing PowerPoint® presentations with educational administrators at “their” national conferences (e.g., AASA, NASSP, and NAESP) might be an effective way to share news of the book’s availability and utility. Similarly, it also made sense to try to get articles in magazines and journals that targeted educational administrators as readers.</p>
<p>6) Anticipate user training needs</p> <p>The primary purpose of this effort is to change the behavior of educational personnel as it relates to the security of sensitive electronic information, critical systems, and computing and networking equipment. It is anticipated that there are two major training components involved in this effort:</p> <ol style="list-style-type: none"> 1) Educational administrators, who themselves are unlikely to be technologically savvy, must be trained to use the document to improve policies and procedures that encourage security within their organizations; and 2) Local on-site trainers, who will be charged by educational administrators (our target audience) to improve security behavior within their organizations, must be prepared to train school and district staff (i.e., a “train the trainers” approach). <p>It is expected that the chances of meeting these training needs will be improved dramatically if training materials are prepared and provided by product developers (as sub-products). The PowerPoint® presentation identified as a sub-product in Step #3 is intended to meet overall training needs.</p>	<p>The task force felt that PowerPoint® presentation sub-products would meet anticipated training needs.</p>

<p>7) Anticipate product testing</p> <p><i>Primary Product (the book)</i></p> <p>The Security document will be designed for a fairly specific target audience (educational administrators). It is, therefore, very important that the product be evaluated on its usefulness to this audience before it is mass produced and distributed. Thus, the working group will carry out the following types of review:</p> <ol style="list-style-type: none"> 1) Internal Forum review via roundtable sessions; 2) Presentations about product development at the NCES Summer Data Conference; 3) Focused review sessions with experienced technologists at the MIS conference; and 4) On-site visits during which product developers (in groups of three) hear firsthand from potential users about the product's content, organization, presentation, and applicability. <p><i>Sub-Products</i></p> <p>Because all sub-products will be based upon content that was prepared for the primary document, it is assumed that sub-product content will be reviewed and approved during development of the book. Therefore, sub-product testing needs will be less complex. It is anticipated that sub-products will be evaluated via:</p> <ol style="list-style-type: none"> 1) Internal Forum review at roundtable discussions; 2) A presentation about development efforts at the NCES Summer Data Conference; 3) A single focus group (of potential users from the D.C. metropolitan area) held in conjunction with a Forum meeting; and 4) Pilot testing certain sub-products, perhaps by focus group participants back at their home organizations. 	<p>The task force appreciated the need to validate the book's content and presentation before production. While feedback from Forum members, Summer Data Conference participants, and MIS attendees would help address content needs, the task force felt that there was no substitute for hearing about the document's presentation and utility from actual educational administrators. Thus, the site visits were determined to be a necessary testing technique despite the additional expense.</p> <p>Sub-product testing was considered to be of secondary importance (but still necessary) because the sub-products were simply alternative ways of presenting the book's previously reviewed content.</p>
<p>8) Estimate product distribution</p> <p>We believe that this product and the supporting sub-products will meet a currently unfilled niche in the education community. Although this product's target audience (educational administrators) is very specific, this group actually represents a large number of people and organizations. Therefore, we recommend that the development of this important resource result in a large scale marketing effort that distributes 16,000 product announcements to education agencies (i.e., LEAs and SEAs), 10,000 executive summaries to educational administrators at the LEA and school levels, and 5,000 brochures to professional conference participants. We estimate that at least 2,000 copies of the actual document be ordered in the first printing.</p> <p>We will only need a single PDF version, HTML version, and PowerPoint® presentation since they can all be distributed electronically. The abstract and press release should be developed as a master copy and recopied only as needed.</p>	<p>The task force felt that the book would meet a currently unfilled need in schools, school districts, state departments of education, libraries, and colleges and universities—thus it justified a significant distribution.</p> <p>In contrast to the wide distribution of the paper document, the task force realized that sub-products (be they electronic or paper) needed only to be created and then replicated on an as-needed basis.</p>
<p>9) Anticipate a product revision schedule</p> <p>Although every effort will be made to focus product content on more timeless procedural efforts that are intended to modify behavior, this subject matter area requires, by definition, a certain amount of computer and networking referencing. The technical nature of this product, therefore, makes it vulnerable to becoming outdated fairly quickly. Thus, we recommend that the product and all sub-products be reviewed within three years of publication by a technically competent group as assigned by TD&C.</p>	<p>The task force understood from the beginning that this technical product would need to be reviewed or revised within a few years in order to ensure that all recommendations are kept up-to-date.</p>

<p>10) Identify resource needs</p> <p>Developing this book will be a major undertaking. Contractor support will be required for approximately 12 months of work (probably stretched over an 18 month period). Product testing requires three site visits for which travel expenses must be covered (for three task force members at each site). The book will require professional editing, layout, and design (estimated at 20 days of work).</p> <p>The task force (with contractor support) will be able to produce all sub-products, with the exception of an HTML version, which will require additional support.</p>	<p>As task force members prepared to embark on the project, they knew that there was a great deal of work ahead of them. For example, although the book would contain numerous chapters, it had to be written in a single voice. Since no task force member was able to dedicate the time it would take to coordinate the effort, it was determined that contractor support was needed. The amount of time requested was a best guess estimate and was subject to revision based upon project progress.</p> <p>Site visit, editing, layout, and design costs were to be estimated by NCES.</p>
<p>11) Establish project timelines</p> <p>Oct. 1996 - begin work (meeting to address pre-development issues) Dec. 1996 - submit <i>Product Development & Dissemination Plan</i> Jan. 1997 - expect TD&C/Steering approval (TF meeting at Forum) Feb. 1997 - first drafts of individual chapters; feedback from MIS presentation (a TF meeting at MIS) July 1997 - DRAFT #1 at Forum round table (TF meeting at Forum) Sept. 1997 - DRAFT #2 (TF meeting) Oct. 1997 - site visits Dec. 1997 - revise document based on site visit feedback Jan. 1998 - final text to Forum for approval (TF meeting at Forum) Spring 1998 - professional editing, design, layout, and production July 1998 - release final paper book (Forum meeting); assist with dissemination</p>	<p>The task force understood that it would be responsible for reporting on project progress to its parent standing committee (TD&C) at scheduled Forum meetings. Thus, it wanted to be realistic with the timelines upon which progress would be measured. It, therefore, based target dates on time needed to accomplish tasks rather than calendar convenience. Still, many activities were able to be coordinated with scheduled Forum meetings in order to minimize travel costs.</p> <p>The task force decided that it was important to release the completed book at a scheduled Forum meeting (July 1998).</p>
<p>12) Determine evaluation methods</p> <p>Product evaluation will include formative feedback from Forum members, Summer Data Conference attendees, MIS participants, and representative users.</p> <p>Process evaluations will be handled by asking each task force member to submit a short (1-2 page) subjective review of project management, Forum support, NCES support, contractor support, and general product development. The NCES liaison will be asked to work with the contractor to compile and synthesize these reports. They will be submitted to the task force chairperson.</p> <p>A final project evaluation will then be submitted to TD&C and the Steering Committee by the task force chairperson.</p>	<p>The task force felt that an evaluation of its efforts and strategies was an important part of the development process. In order to accomplish this, it hoped to encourage feedback from task force members, conference attendees, other Forum members, and representatives of its target audience. The task force also wanted to make sure that the evaluation process was not just an added formality at the end of the project; instead, it planned to solicit feedback throughout the development process in order to make interim improvements as was possible.</p>
<p>13) Appoint a Dissemination Coordinator</p> <p>Jeff will assume the role of the Dissemination Coordinator.</p>	<p>The task force agreed that all meetings would include updates from the dissemination coordinator.</p>